Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (currently amended): An apparatus in a zero or low-gravity environment, the apparatus comprising:

means for generating a magnetic field in proximity to an orbital path in the zero or low-gravity environment; and

an object moving in proximity to the generating means and having a trajectory and speed, the object being sufficiently close to the generating means such that the magnetic field alters at least one of the trajectory and speed of the object to selectively inject the object into orbit along the orbital path or eject the object from the orbital path;

wherein the generating means defines an opening of sufficient size to enable the object to move through the opening, and the generating means is configured for passage of the object completely through the generating means.

Claim 2 (original): The apparatus according to claim 1, wherein the

object contains a ferrous material or an electromagnet or holds a static charge.

Claims 3 and 4 (canceled)

Claim 5 (currently amended): The apparatus according to claim 1, ~~claim 4,~~ wherein the generating means is operable to decelerate the object.

Claim 6 (currently amended): The apparatus according to claim 1, ~~claim 4,~~ wherein the generating means is operable to accelerate the object.

Claim 7 (currently amended): An apparatus in a zero or low-gravity environment, the apparatus comprising:

means for generating a magnetic field in proximity to an orbital path in the zero or low-gravity environment; and

an object moving in proximity to the generating means and having a trajectory and speed, the object being sufficiently close to the generating means such that the magnetic field alters at least one of the trajectory and speed of the object to selectively inject the object into orbit along the orbital path or eject the object from the orbital path; ~~The apparatus according to claim 1,~~

wherein the generating means comprises a coil that defines an opening and the coil is operable to alter only the trajectory of the object as the object moves past but not through the opening.

Claim 8 (original): The apparatus according to claim 1, wherein the generating means comprises at least one coil.

Claim 9 (previously presented): The apparatus according to claim 1, wherein the generating means comprises a plurality of concentrically aligned coils, each of the concentrically-aligned coils generating a magnetic field that alters the speed of the object.

Claim 10 (previously presented): The apparatus according to claim 9, wherein the concentrically-aligned coils have decreasing sizes in one direction of their concentric alignment.

Claim 11 (currently amended): An apparatus in a zero or low-gravity environment, the apparatus comprising:

means for generating a magnetic field in proximity to an orbital path in the zero or low-gravity environment; and

an object moving in proximity to the generating means and having a trajectory and speed, the object being sufficiently close to the generating means such that the magnetic field alters at least one of the trajectory and speed of the object to selectively inject the object into orbit along the orbital path or eject the object from the orbital path; ~~The apparatus according to claim 1,~~

wherein the generating means comprises a plurality of coils aligned along an arcuate path, each of the arcuately-aligned coils generating a magnetic field that alters at least the trajectory of the object.

Claim 12 (previously presented): The apparatus according to claim 11, wherein each of the arcuately-aligned coils has an axis, the axes of the arcuately-aligned coils are aligned as radii of a circle, and the magnetic fields of the arcuately-aligned coils push the object away from the arcuately-aligned coils or pull the object toward the arcuately-aligned coils.

Claim 13 (previously presented): The apparatus according to claim 11,wherein each of the arcuately-aligned coils has an axis, the axes of the arcuately-aligned coils are aligned as radii of a spiral, and the magnetic fields of the arcuately-aligned coils push the object away from the arcuately-aligned

coils or pull the object toward the arcuately-aligned coils.

Claim 14 (original): The apparatus according to claim 1, wherein the generating means comprises means for controlling the attitude of the generating means relative to the object.

Claim 15 (original): The apparatus according to claim 1, wherein the generating means comprises means for receiving and sending communications.

Claim 16 (original): The apparatus according to claim 1, wherein the generating means comprises:

means for receiving and sending communications; and

means for controlling the attitude of the generating means relative to the object in response to the communications received by the receiving and sending means.

Claim 17 (original): The apparatus according to claim 1, wherein the generating means comprises means for capturing and storing energy of a back-emf pulse created as the object enters the magnetic field generated by

the generating means.

Claim 18 (original): The apparatus according to claim 1, wherein the generating means comprises means for capturing and storing solar energy.

Claim 19 (previously presented): An apparatus for maneuvering an object having a trajectory and speed in a zero or low-gravity environment, the apparatus comprising:

a plurality of coils aligned, separated, and spaced apart from each other along a path, each coil generating a magnetic field in the zero or low-gravity environment; and

wherein the coils are oriented and spaced along the path so that their magnetic fields cooperate to alter the trajectory and speed of the object as the object moves in proximity to the path.

Claim 20 (previously presented): The apparatus according to claim 19, wherein at least some of the coils are concentrically aligned, each of the concentrically-aligned coils defines an opening of sufficient size to enable the object to move through the opening, and the apparatus alters the speed of the object as the object successively passes through the openings of the

concentrically-aligned coils.

Claim 21 (previously presented): The apparatus according to claim 20, wherein at least a portion of the path is an orbital path.

Claim 22 (previously presented): The apparatus according to claim 20, wherein the apparatus further comprises means for capturing and storing energy of a back-emf pulse created as the object enters the magnetic fields generated by the concentrically-aligned coils.

Claim 23 (previously presented): The apparatus according to claim 19, wherein at least some of the coils are aligned along an arcuate path, each of the arcuately-aligned coils has an axis, the axes of the arcuately-aligned coils are aligned as radii of a circle, and the magnetic fields of the arcuately-aligned coils push the object away from the arcuately-aligned coils or pull the object toward the arcuately-aligned coils so as to alter the trajectory of the object.

Claim 24 (previously presented): The apparatus according to claim 19, wherein at least some of the coils are aligned along an arcuate path, each of the arcuately-aligned coils has an axis, the axes of the arcuately-aligned coils

are aligned as radii of a spiral, and the magnetic fields of the arcuately-aligned coils push the object away from the arcuately-aligned coils or pull the object toward the arcuately-aligned coils so as to alter the trajectory of the object.

Claim 25 (currently amended): A method of transferring an object to an orbital path in a zero or low-gravity environment, the method comprising the steps of:

generating a magnetic field in proximity to the orbital path; and

causing the object to move with a trajectory and speed in proximity to the magnetic field, the object being sufficiently close to the magnetic field such that the magnetic field alters at least one of the trajectory and speed of the object to inject the object into orbit along the orbital path; and

capturing and storing energy of a back-emf pulse created as the object enters the magnetic field.

Claim 26 (original): The method according to claim 25, wherein the magnetic field is generated by at least one coil defining an opening and the magnetic field alters the speed of the object as the object moves through the opening.

Claim 27 (original): The method according to claim 26, wherein the magnetic field decelerates the object.

Claim 28 (previously presented): The method according to claim 25, further comprising the step of accelerating the object with the magnetic field to cause the object to leave the orbital path.

Claim 29 (previously presented): A method of maneuvering an object in a zero or low-gravity environment, the method comprising the steps of:

generating a magnetic field in the zero or low-gravity environment, wherein the magnetic field is generated by at least one coil defining an opening and

causing the object to move with a trajectory and speed in proximity to the magnetic field, the object being sufficiently close to the magnetic field such that the magnetic field alters the trajectory of the object as the object moves past but not through the opening.

Claim 30 (previously presented): The method according to claim 25, wherein a plurality of magnetic fields are generated by a plurality of

concentrically aligned coils, each of the concentrically-aligned coils generating a magnetic field that alters the speed of the object to inject the object into orbit along the orbital path.

Claim 31 (previously presented): The method according to claim 30, wherein the concentrically-aligned coils have decreasing sizes in one direction of their concentric alignment.

Claim 32 (previously presented): The method according to claim 29, wherein a plurality of magnetic fields are generated by a plurality of coils aligned along an arcuate path, each of the arcuately-aligned coils generating a magnetic field that alters at least the trajectory of the object as the object moves past but not through openings of the arcuately-aligned coils.

Claim 33 (previously presented): The method according to claim 32, wherein each of the arcuately-aligned coils has an axis, the axes of the arcuately-aligned coils are aligned as radii of a circle, and the magnetic fields of the arcuately-aligned coils push the object away from the arcuately-aligned coils or pull the object toward the arcuately-aligned coils.

Claim 34 (previously presented): The method according to claim 32, wherein each of the arcuately-aligned coils has an axis, the axes of the arcuately-aligned coils are aligned as radii of a spiral, and the magnetic fields of the arcuately-aligned coils push the object away from the arcuately-aligned coils or pull the object toward the arcuately-aligned coils.

Claim 35 (original): The method according to claim 25, further comprising the step of controlling the orientation of the magnetic field relative to the object.

Claim 36 (original): The method according to claim 25, further comprising the steps:

receiving and sending communications; and

controlling the orientation of the magnetic field relative to the object in response to the received communications.

Claim 37 (canceled)

Claim 38 (original): The method according to claim 25, further comprising the step of capturing and storing solar energy.

Claim 39 (previously presented): A method of maneuvering an object having a trajectory and speed in a zero or low-gravity environment, the method comprising the steps of:

providing a plurality of coils aligned, separated, and spaced apart from each other, each coil generating a magnetic field in the zero or low-gravity environment; and

causing the object to move in proximity to each of the coils, the object passing sufficiently close to each of the coils such that the magnetic fields thereof cooperate to alter the trajectory and speed of the object.

Claim 40 (previously presented): The method according to claim 39, wherein at least some of the coils are concentrically aligned, each of the concentrically-aligned coils defines an opening of sufficient size to enable the object to move through the opening, and the speed of the object is altered as the object passes successively through the openings of the concentrically-aligned coils.

Claim 41 (previously presented): The method according to claim 40, wherein the causing step injects the object into orbit along an orbital path.

Claim 42 (previously presented): The method according to claim 41, further comprising the steps of:

capturing and storing energy of a back-emf pulse created as the object enters the magnetic field of each of the coils; and

ejecting the object from the orbital path with the coils using the energy.

Claim 43 (previously presented): The method according to claim 41, wherein at least some of the coils are aligned along an arcuate path, each of the arcuately-aligned coils has an axis, the axes of the arcuately-aligned coils are aligned as radii of a circle, and the magnetic fields of the arcuately-aligned coils push the object away from the arcuately-aligned coils or pull the object toward the arcuately-aligned coils so as to alter the trajectory of the object.

Claim 44 (previously presented): The method according to claim 41, wherein at least some of the coils are aligned along an arcuate path, each of the arcuately-aligned coils has an axis, the axes of the arcuately-aligned coils are aligned as radii of a spiral, and the magnetic fields of the arcuately-aligned coils push the object away from the arcuately-aligned coils or pull the object toward the arcuately-aligned coils so as to alter the trajectory of the object.